DOCUMENT RESUME

ED 101 732 95 IR 001 585

TITLE	Study of Education Satellite Communications Demonstration: Alaska. Bi-Monthly Report.
INSTITUTION	Practical Concepts, Inc., Washington, D.C.
SPONS AGENCY	National Inst. of Education (DHEW), Washington, D.C.
PUB DATE	24 Sep 74
NOTE	27p.; For related documents see IR 001 586-588
EDRS PRICE	MF-$0.76 HC-$1.95 PLUS POSTAGE
DESCRIPTORS	*Communication Satellites; *Demonstration Projects; Demonstrations (Educational); *Educational Innovation; Educational Technology; Educational Television; Management Development; Media Research; Media Technology; Rural Development; Rural Education; Telecommunication; Television Research
IDENTIFIERS	*Alaska; Educational Policy Research Center; EPRC

ABSTRACT

A bimonthly report describes a recent work to determine the use of satellite educational television in remote and isolated rural communities, especially those inhabited by native Alaskans. It is believed that educational satellite communication has its greatest potential in Alaska because of these conditions. The report describes the scope of the effort but specifically precludes interim assessments. Six study areas are listed and specifications are given. An outline for the final report and management procedures are included, along with the work schedule for future activities. (SK)

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STUDY OF EDUCATION SATELLITE COMMUNICATIONS DEMONSTRATION - ALASKA

BI-MONTHLY REPORT

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September 24, 1974

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SECTION I: INTRODUCTION

SECTION ONE

INTRODUCTION

A. PERCEIVED NEED & CONTRACT SCOPE

The Educational Satellite Communication Demonstration was initiated to determine the uses of satellite educational television in remote and isolated rural communities. Specifically required is information which will shed light on the feasibility of satellite television as an adjunct to existing education institutions. PCI believes that in Alaska, more than in other areas, there is an immediate need because:

1. It is in Alaska that the need for utilizing satellite communication for education is immediate, most probable and of the highest potential value;
2. It is in Alaska that satellite operations are liable to have the most effect upon local structures, customs and institutions.

The scope of our effort includes:

1. A chronology of critical events dealing with the demonstration, emphasizing the interrelationships among agencies, groups representing consumers and village residents;
2. A description of the availability and utilization of technology at the village level;
3. A descriptive analysis of village involvement in the Educational Satellite Communication Demonstration (ESCD) process;
4. A description of the impact of ESCD broadcasts on village residents and the way they perceive the potential of satellite telecommunications for education and cultural exchange;

5. A description of the influence of the demonstration on educational organizations and processes.

Descriptions and analyses relevant to the villages will be based on data collected from the intensive study of villages selected during the initial portion of this effort (see Section III.D).

B. BI-MONTHLY REPORTS

The bi-monthly reports will contain the detailed chronicalling of information gathered over the preceding two-month period and will be the major source of information input to the Educational Policy Research Center (EPRC) of Syracuse University, the agent responsible for policy formulation to the National Institute of Education (NIE). In general, these reports will contain:

1. Narrative of accomplishments;
2. Work in progress;
3. Work planned;
4. Bibliography of documents collected;
5. Inventory of data collected;
6. Travel performed and travel for succeeding report period;
7. Optional appendices.

Specifically precluded will be reports on or interpretation of data prior to collection of a complete data set. Premature publication of such data could lead to erroneous interpretations which would seriously jeopardize our relationship with pertinent organizations in Alaska. Our ability to perform on this contract rests on the respect and trust which involved organizations feel toward us. The key to retaining such trust and respect is prudent handling of information.

This is the first of six bi-monthly reports which precede the first Annual Report. This was a period of firming up task objectives and defining relationships and responsibilities of the PCI team members. Field work will not begin until the following reporting period.

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SECTION II: STUDY SCOPE

SECTION TWO

STUDY SCOPE

A. FOCUS

The focus for the study was obtained by determining the objective to be achieved as a result of the effort. PCI identified two objectives worth working toward:

1. NIE through its demonstration with the Advanced Technology Satellite-6 (ATS-6) and subsequent satellites determines how technology can be made to respond to:

   a. Alaskan Native needs and desires for access to specific aspects of white culture and education as may be generalizable from reaction to Health Education Programming and Basic Oral Language Development (if produced);

   b. Alaskan Native needs and desires for dissemination and discussion of Native issues and concerns as may be generalizable from reaction to the Alaska Native Magazine.

2. NIE sponsors demonstrations of educational technology which:

   a. Generate valuable information about educational processes;

   b. Have no harmful effects on demonstration participants; e.g., false expectations raised concerning the future availability of television in villages.

It was clear that given the resources available, it would be much better to concentrate on one of them. Focusing on either objective would certainly generate information pertinent to the other, but focusing on both objectives at once would result in an incomplete job on both.

Choice of appropriate objective clearly required client input. Dick Holt and Guy Groen from the National Institute of Education met with PCI on August 2, 1974. Both demonstration foci were presented and PCI's perception of the objective which came out of that meeting is the following:

> NIE through its demonstration with the ATS-6 gains information to determine how telecommunications technology can be used by:
>
> a. Educational organizations, e.g., Alaska State Operated School System, to respond to Alaskan Native needs and desires for access to specific aspects of white culture and education;
>
> b. Alaskan Native groups to meet their needs and desires for dissemination and discussion of Native issues and concerns.

Additional focus for our study of ESCD is provided by noting PCI's perception of the demonstration participants' long-term objective with regard to satellite television in Alaska. PCI reading of materials describing ESCD in Alaska, and conversation with ESCD's Alaska participants lead us to conclude that the participants' long-range goal is:

- Alaskan Native cultures accommodate to current realities without being destroyed.

B. STUDY WORKSTATEMENT

During the last two weeks of August Roger Popper and Al Feiner went to Alaska to meet with the Center for Northern Educational Research staff, primarily Drs. Katherine Hecht and Jim Orvik. Adrian Parmeter, who works for PCI in an associate capacity, was also in attendance. The first product of the working sessions was the following list of study areas:

1. A history of critical events dealing with the demonstration, emphasizing the interrelationships among agencies, groups representing consumers and village residents;
2. A history and description of village involvement in the ESCD process;

3. A description of utilization and availability of satellite TV technology in the villages;

4. A description of the impact of the demonstration on village residents and on village institutions;

5. A description of post-demonstration effects;

6. A description of unforeseen effects, both positive and negative;

7. Bi-monthly and annual reports on all of the above.

The next step was to specify in detail what the above listed outputs must be like to achieve the desired result of allowing NIE to determine how the technology can be made to respond to Alaskan Native needs and desires. The study team agreed to the following specifications:

STUDY AREA	SPECIFICATIONS
1. History of critical events dealing with the demonstration, emphasizing the interrelationships among agencies, groups representing consumers and village residents.	Time period that must be covered: Background of Alaskan experience with Application Technology Satellite #1 (ATS-1) through December, 1975, which is approximately 6 months after the end of the demonstration. Data sources which must be covered: Federal level: National Aeronautics & Space Administration; Office of Education/National Institute of Education; Department of Health, Education & Welfare/Office of Telecommunications Policy. State level: Alaska Department of Education; Governor's Office of Telecommunications; Northwest Research Laboratory; University of Alaska Television Station (KUAC); Alaska Educational Broadcasting Corporation, Alaska State Operated School System. Local level: Alaska Federation of Natives, National Education Association, Consumer Committees, Village Councils, School Boards.

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STUDY AREA	SPECIFICATIONS
1. (Continued)	Events which must be chronicled: Critical events are those which imply action on or by others.
2. History and description of village involvement in ESCD processes.	Time period that must be covered: Initial Alaskan Native involvement in the demonstration through termination of the demonstration. Issues that must be covered: . Village awareness of the demonstration. . Formal arrangements for dissemination of information about the demonstration. . Actual process of information dissemination (how did villagers really find out about it?) . Accuracy of villagers' awareness of the demonstration. Do they know about the demonstration's duration and programs, and about the satellite TV technology's capabilities? Village involvement in the demonstration: . How were villagers involved in the demonstration selected? . What kind of people are the involved villagers? (biographic data, etc.) . To what extent were villagers involved in the demonstration's decisions and processes? Organization and groups that must be covered: . Consumer Committees . Interactive programs . Other?

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STUDY AREA	SPECIFICATIONS
3. Description of availability and utilization of technology at the village level (case villages).	Description of technological setting in the case villages. Log of critical technological problems (local and non-local technological problems). Log of village satellite TV includes: . When is the village TV set turned on and off? . How many people attend what programs? . Log of participation in a video or audio up-link. Who uses the up-link to do what? . What additional materials and technology are used to supplement satellite TV broadcasts? . What languages are used with TV broadcasts? . What programs are recorded on video tape and reused?
4. Description of impact of demonstration on Native village residents and institutions.	Time period that must be covered: Duration of the demonstration. People who must be studied: . Student audience . Teachers . Parents . Program participants People's perceptions that may be covered: . Acceptance, utility and value of satellite TV . Schools . Intervillage relationships . Native and white cultures . Native identify and assimilation rate

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STUDY AREA	SPECIFICATIONS
4. (Continued)	Institutions that must be covered: . Schools . Village Councils Aspects of institutions that may be covered: . School curriculum changes . Curriculum delivery mode changes . Intervillage relationships . Autonomy and demand made of the establishment
5. Description of post-demonstration effects.	Time period that must be covered: End of demonstration through December, 1975. Issues that must be covered: . What happens to manpower trained for the demonstration after the demonstration is over? . What happens to equipment used in the demonstration after the demonstration is over? . What attempts are made, after the demonstration is over, to replace services provided by satellite TV? (Examples: specific programs, intervillage communications, intercultural relationships) . After the demonstration, do teachers and schools make demands of the educational establishment similar to those they were allowed to make of the satellite TV system? . Do teachers and schools change their mode of operation in other ways due to the demonstration? . What is the impact of the demonstration on planning relative to satellite communication in Alaska? . What is the impact of the demonstration on planning relative to non-satellite media?

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STUDY AREA	SPECIFICATIONS
6. A description of unforeseen effects, both positive and negative.	Issues that must be covered: Effects that may impact the inter-relationships between: . villages . village groups with common cultural interests . sectors not necessarily educationally oriented.

C. REPORT OUTLINES

An outline which the study team will follow for the bi-monthly reports and a tentative outline for the first Annual Report are shown below.

Bi-Monthly Report Outline

I. Narrative of accomplishments, work in progress, work planned.

- A. Progress by output
- B. Progress by schedule
- C. Concerns

II. Bibliography of documents collected.

III. Data inventory.

- A. How many of which instrument used in what location
- B. Logs
- C. Schedule of informal interviews

IV. Travel.

- A. Who went where? Why?
- B. Who will go where, when, why, over the succeeding 2 months?

V. Contact with Syracuse.

VI. Optional Appendices

First Annual Report Outline

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Vol. 1: Executive Summary

Vol. 2: 1st Annual Report

I. Introduction

A. Alaska Need
B. Contract Purpose
C. Approaches
D. Report Content

II. Description of Process and Impact through Demonstration Period (May '75)

A. Chronology of critical events dealing with the demonstration emphasizing interrelationships among agencies, groups representing consumers, village residents.
B. Description of utilization and availability of technology at village level.
C. Description of village involvement in ESCD processes.
D. Description of the impact of the demonstration on village residents.

Appendices: I. Methodology

A. Logs
B. Instruments
C. Interviews

II. Analysis Techniques

III. Data Interpretation

IV. Raw Data Collected

V. Syracuse Contacts

VI. Other

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D. MANAGEMENT & SCHEDULE

The planning described was done essentially in plenary session (Feiner, Popper, Hecht, Orvik, Parmeter). Further planning and task accomplishment requires a division of labor and responsibility. Figure 1 contains a management scheme which connects people and methods to the study areas. Table 1 connects time frames to the methods. Both tables require definition of general methods to be used. The methods are described in detail in Section Three.

In Figure 1, the following definitions apply:

Documentation - collection and analysis of written material about the Educational Satellite Demonstration in Alaska. The focus is on "critical events."

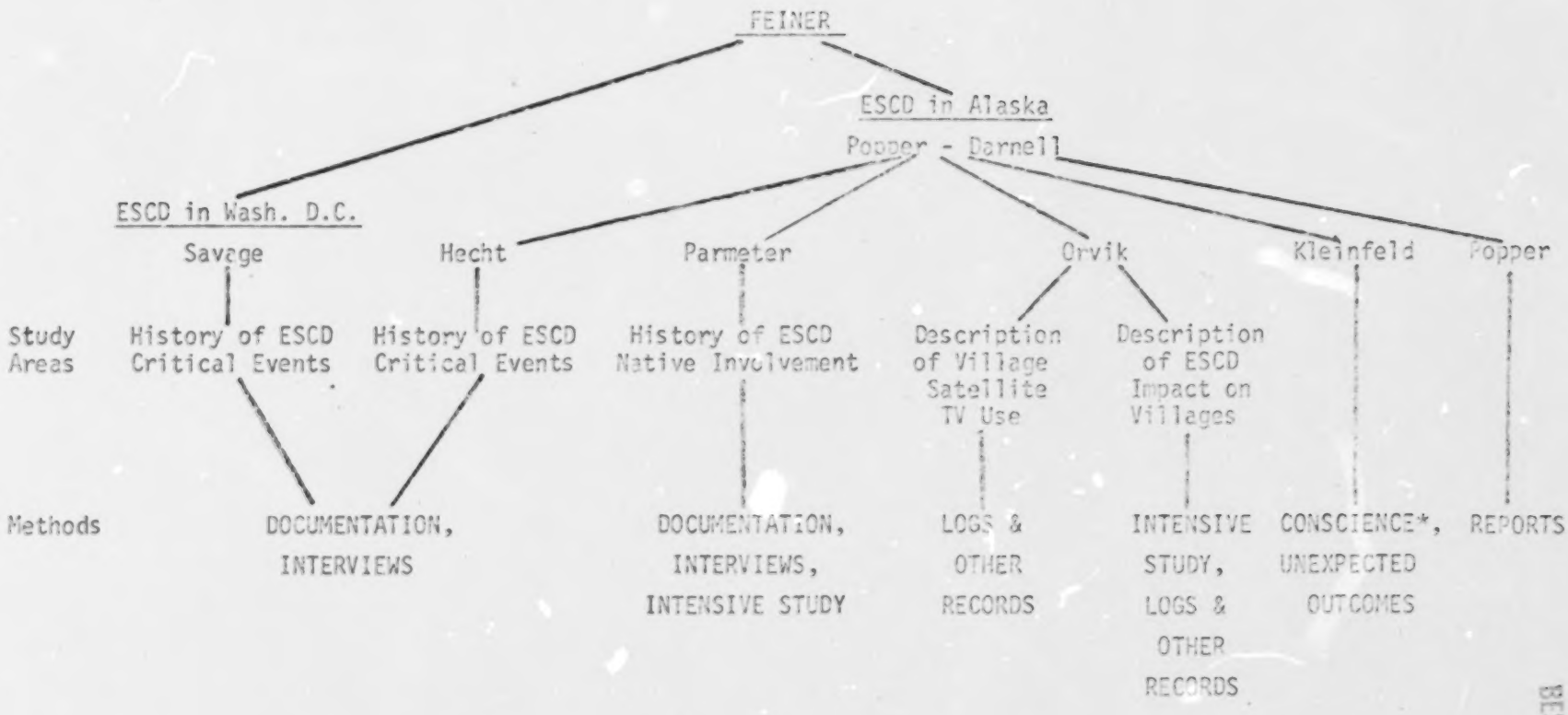
Interview - conversations with specific people as sources of information about ESCD in Alaska. The focus is on critical events.

Logs - data collection which requires only observation and counting, e.g., recording when the television sets are on and off and attendance records.

Intensive Study - conversations with people as representative of a particular group of people. The focus is on ascertaining attitudes and opinions of Alaskan Native villagers concerning satellite TV and its potential.

FIGURE 1

MANAGEMENT SCHEME



* Dr. Judith Kleinfeld has the responsibility of making sure we do not overlook important issues and unexpected outcomes of the demonstration.

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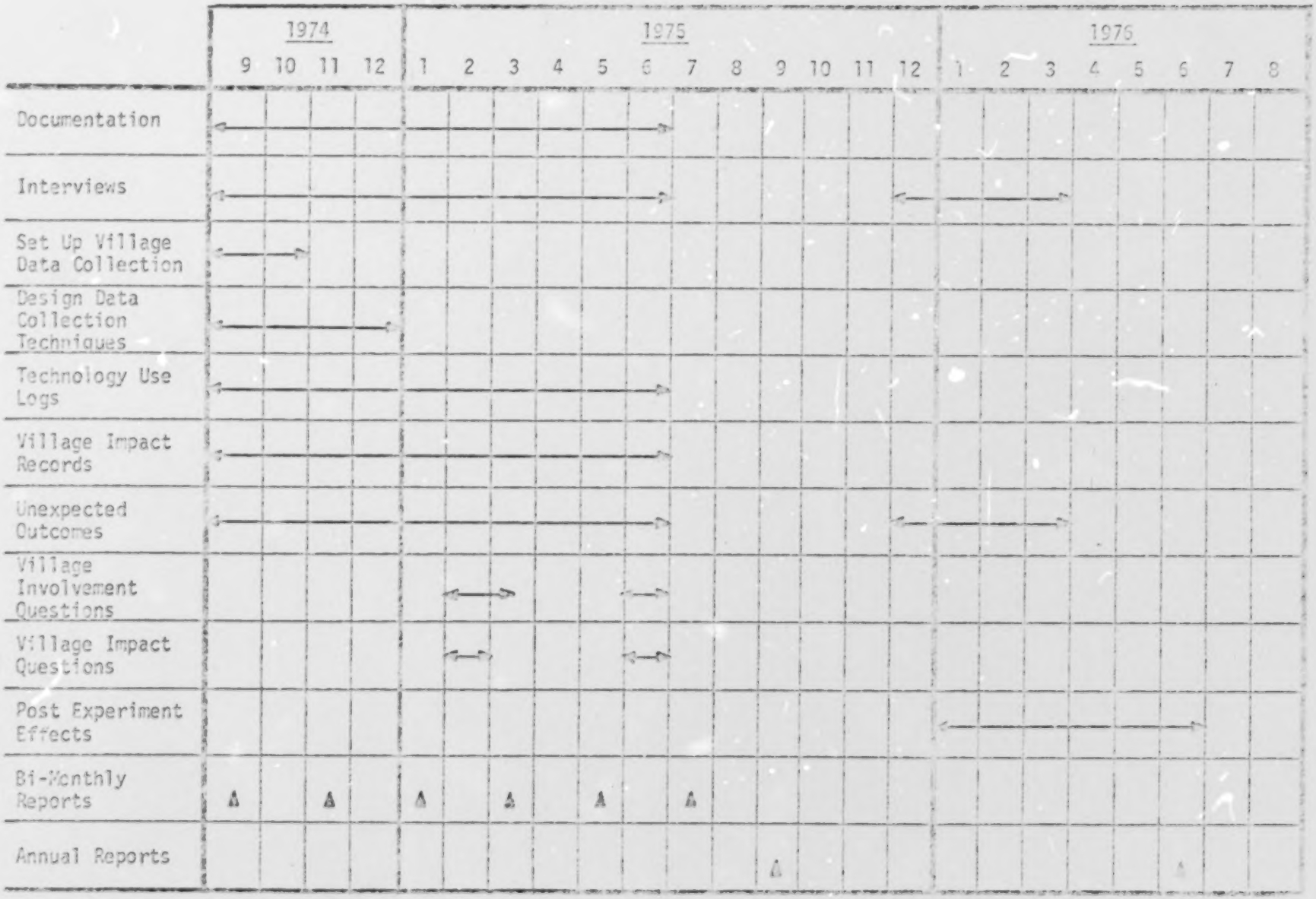
TABLE 1

PROJECT TASK SCHEDULE



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SECTION III: STUDY METHODS

SECTION THREE

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STUDY METHODS

A. DOCUMENTATION & INTERVIEWS

The Management Scheme shows documentation and interviews contribute to:

1. History of critical events dealing with the demonstration, emphasizing the interrelationships among agencies, groups representing consumers, and village residents;
2. Description of village involvement in FSCD processes.

Our documentation and interview procedures interlock in the manner described in the list below.

DOCUMENTATION-INTERVIEW CYCLE

1. Interviews and collection of documents with initial contacts;
2. Collection of readily available written material;
3. Historical ordering;
4. Preliminary identification of decision points;
5. Discrepancy check: decision points (#4) vs. available documents;
6. Collection of written material to fill discrepancies;
7. Discrepancy check;
8. Interview to fill remaining gaps and verify;
9. New contacts and repeat 2 - 9 until you catch up with yourself;
10. Keep current: streamlined version of 1 - 9 above.

B. LOGS AND OTHER RECORDS

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Logs and other records contribute to:

1. The description of satellite TV use in the Native villages;
2. The description of the impact of satellite TV on Native villages.

Records having to do directly with satellite TV use in the villages will be maintained by the implementation staff employed by KUAC in Fairbanks. It is our understanding that they will collect:

1. On - off times;
2. Attendance;
3. Language channel choice;
4. Who uses the up-link.

In addition they will collect:

5. TV signal strength as measured by a signal strength meter;
6. Subjective judgments of picture quality.

We are looking into the possibility of collecting the following information to help us in our description of the impact of satellite TV on Native villages:

1. Tape recordings of interaction via audio up-link;
2. Requests made of Native Magazine, and of other satellite TV programs;
3. School Board meeting agendas and minutes;
4. Requests made of the educational system.

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C. INTENSIVE STUDY

Surveys contribute to:

1. The description of ESCD impact on Native villages;
2. The description of village involvement in ESCD processes.

As a starting point for our survey approach, we defined the following philosophy:

1. No psychological games. We will approach Native villagers as experts concerned with the uses of satellite TV in Native villages, and we will stay away from models and procedures that require inference;
2. Filter all ideas through Native experts to which CNER has easy access;
3. Use Native interviewers whenever possible;
4. Village Council approval of our plans to interview residents of villages is a minimum pre-requisite to village contact;
5. To detect differences possibly due to satellite TV, we will use adult recollection of the past, as opposed to trend analysis or control groups.

The following is a list of sample questions. It represents only our current thinking on the issue. Description of impact on Native villages is the most delicate, and at present the least time urgent, of our tasks. We want to make sure we have Native villager input before we finalize the questions.

SAMPLE QUESTIONS

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(open end, follow-up leads)

AWARENESS

When did you first hear about satellite TV?
How did you hear about it?
What did you find out?

What can satellite TV do?
What programs are there?

PERCEIVED UTILITY

To whom does satellite TV belong?
Who decides what you get on satellite TV?
How do they decide?
Was anyone in your village consulted?
Do you know anybody who was asked?
Do you think they were listened to? Do you think they had any effect?

PERCEIVED IMPACT

How has satellite TV changed life in the village? What good things? What bad things? (FOR VILLAGERS AND TEACHERS)
What do you think the effect will be of satellite TV on your village?
What do you think the effect will be of satellite TV on your children?
What do you think the effect will be of satellite TV on your people?

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D. SELECTION OF FOUR VILLAGES FOR INTENSIVE STUDY

It is not possible to pick a sample of ESCD Alaskan Native villages which would be representative in any formal sense of Alaskan Native villages in general, or of the villages in the demonstration. Therefore we are trying to pick villages that can provide answers to as many of the important issues as possible. Below are listed some criteria which will determine our choice:

1. Village Council approval;
2. Audio vs. audio-video up-link;
3. Native language of village;
4. Extent to which Native language is spoken;
5. Size of population speaking Native language;
6. Geographic spread, isolation, accessibility, contact, etc.;
7. CNER contacts;
8. Overlap with other data collection efforts.

The prime candidate Native villages at present are:

1. Aniak and/or Chauthbaluk (Little Russian Mission) because of their proximity to Bethel where there is high Native involvement in education;
2. Tanana because of its interior location and its status as a center for villages in the vicinity;
3. Angoon because it represents the southeast and their relatively developed (for rural Alaska) access to communication;
4. Petersburg, Valdez or Fairbanks because of their large white population;
5. Nikolai because of its isolation.

E. WORK SCHEDULE FOR SUCCEEDING PERIODS

ESCD Critical Events

1.	Interviews and collection of documents with initial contacts.	Sept. - Nov.
2.	Collection of readily available written material.	Oct. - Nov.
3.	Historical ordering.	Nov.
4.	Preliminary identification of decision points.	Nov.
5.	Discrepancy check: decision points (#4) vs. available documents.	Dec.

History and Description of Village Involvement in ESCD Processes

1.	Interviews and collection of documents with initial contacts.	Sept. - Nov.
2.	Collection of readily available written materials.	Oct. - Nov.
3.	Historical ordering.	Nov.
4.	Preliminary identification of decision points.	Nov.
5.	Discrepancy check: decision points (#4) vs. available documents.	Dec.

Availability and Utilization of Technology at Village Level

1.	Coordinate with KUAC/GOT.	Oct.
2.	Set up procedure for receiving information from logs.	Oct.
3.	Begin information collection.	Oct.

Description of Impact of Demonstration
on Native Villages

1.	Choose villages.	Sept.
2.	Design training of Native interviewer..	Oct. - Nov.
3.	Select and hire Native interviewers.	Oct. - Nov
4.	Finalize open-ended questions.	Nov.
5.	Consult with Native groups about questions.	Nov.
6.	Initial contact with selected villages.	Nov.